

# DART SERVICE INSTRUCTION

## TO AMEND INSTALLATION INSTRUCTIONS D350-607-3 REV. D

REF TCCA STC: SH94-14  
REF FAA STC: SR00213NY  
REF EASA STC: 10016996

### 1.0 PURPOSE

This Dart service instruction provides parts and instructions for modifying the basket base assembly of a D350-607-545/-547 Heli-Utility-Basket for installation of scanning equipment.

The DSI 9603-011 kit consists of parts required to modify the basket base assembly of D350-607-545/-547 Heli-Utility-Basket.

The DSI 9603-013 kit is an optional liner kit for customers who wish to add some protection for the equipment that will be installed inside the basket. Customers who wish to procure DSI 9603-013 kit for their D350-607-547 Heli-Utility-Basket modified with DSI 9603-011 must convert their D350-607-547 Heli-Utility-Basket into a D350-607-545 Heli-Utility-Basket using the D350-607-415 Kit. Note that the DSI 9603-013 kit is not waterproof.

### 2.0 MODIFICATION PROCEDURE (DSI 9603-011):

- 2.1 Disassemble basket and retain hardware.
- 2.2 Locate the D4017-9 Ribs as shown in Figure 1. It is acceptable to trim the D4017-9 Ribs to fit as required.
- 2.3 Transfer mark the location of D4017-9 Ribs onto expanded metal. Ensure there is enough surface contact of the expanded metal strands with the new D4017-9 Ribs.
- 2.4 Trim expanded metal. Remove finish locally on expanded metal and basket base structure where the new D4017-9 Ribs and D4623-1/-3 Bushings will be added.
- 2.5 Weld the new D4017-9 Ribs to the basket tubular structure per MIL-STD-2219/AMS-STD-2219 Class 'C' using ER308L or ER316L filler rod.
- 2.6 Cut center rib. Ensure removal of the center ribs will not damage the attaching ribs of the basket structure.
- 2.7 Locate and weld in place the D4623-1/-3 Bushings as shown in Section A-A.
- 2.8 Tig weld (tack weld) the expanded metal strands to the basket tubular structure per MIL-STD-2219/AMS-STD-2219 Class 'C' using ER308L or ER316L filler rod.
- 2.9 Ensure there is no weld flashings in D4623-1/-3 by cleaning the ID of the bushings with a size 'F' drill ( $\phi 0.257$ ) as required.
- 2.10 Mask ID of D4623-1/-3 Bushings and touch up powder coat of affected areas on the base with white powder coat (4.3.5.2) per Dart QSI 005 4.3 or in accordance with ICA-D350-607.
- 2.11 Modify D4624-1 Supporting Plate per Sheet 3 of this service instruction. Mount D4624-1 plate at the bottom of basket base assembly as shown on Sheet 4 of this service instruction.
- 2.12 Re-assemble basket per ICA-D350-607. Replace any worn hardware as necessary.

### 3.0 CUTOUTS FOR CAMERAS/LASERS

The following restrictions apply when using/loading the D350-607-545/-547 Heli-Utility-Basket modified per this service instruction:

- 3.1 Cutouts for lasers/cameras that do not exceed half the hatched area of Figure 2 are allowed in the hatched areas. These cutouts must be sealed for flight with a laser/camera.
- 3.2 Lasers/cameras can be mounted to the D4624-1 Plate using appropriate hardware.
- 3.3 After drilling holes/cutouts, touch up finish with alodine and paint D4624-1 using MIL-P-85582 or MIL-P-23377 primer and 2-3 coats of MIL-C-85285 polyurethane paint.
- 3.4 These instructions do not approve any electrical/electronic modifications required in the aircraft to operate the equipment in the basket.
- 3.5 If a basket modified per DSI 9603 is going to be used to carry loose cargo the cutouts in the D4624-1 Supporting Plate must be covered with blanking plates.

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DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY:   
D. SHEPHERD (DE # 02)

DATE: 15.01.07  
CERT. NO.: SH94-14  
ISSUE NO.: 6

B	REVISE PARAGRAPH 1.0: EXTEND APPLICABILITY OF DSI 9603-011 TO D350-607-547; ADD COMMENT TO CONVERT D350-607-547 TO -545 FOR FULL INSTALL OF DSI 9603-013	MB	15.01.07
A	NEW ISSUE	MB	12.03.27
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9603	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		BASKET MODIFICATION	NTS
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#### 4.0 INSTALLATION OF LINERS (DSI 9603-013):

- 4.1 Locate the D4628-9 Cover Plate as shown in Figure 3. It is acceptable to trim the D4628-9 to fit as required.
- 4.2 Remove finish locally on basket base structure where the D4628-9 Cover Plate will be added.
- 4.3 Weld the new D4826-9 to the basket tubular structure per MIL-STD-2219/AMS-STD-2219 Class 'C' using ER308L or ER316L filler rod.
- 4.4 Touch up powder coat of affected areas on the base with white powder coat (4.3.5.2) per Dart QSI 005 4.3 or in accordance with ICA-D350-607.
- 4.5 Locate liners as indicated in Figure 3 (basket base) and Figure 4 (basket lid) of this service instruction.  
Note: it is acceptable to trim the D4628-1/-3/-5/-7 liners to fit as required.
- 4.6 Locate and drill  $\varnothing 0.257$ - $\varnothing 0.281$ " hole through D4628-1/-3/-5/-7 in center of the void of the mesh approx as shown. Deburr.
- 4.7 Secure D4628-1/-3/-5/-7 to basket mesh base/lid using provided AN4 hardware.
- 4.8 As required, it is acceptable to use more AN4 hardware (not supplied).

#### 5.0 PARTS LIST

QTY -011	QTY -013	PART NUMBER	DESCRIPTION
X		DSI 9603-011	BASKET MODIFICATION
	X	DSI 9603-013	LINER
4		D4017-9	RIB
7		D4623-1	BUSHING, SHORT
6		D4623-3	BUSHING, LONG
1		D4624-1	MOUNTING PLATE
	2	D4628-1	LINER, FACE
	1	D4628-3	LINER, INBOARD
	1	D4628-5	LINER, OUTBOARD
	9	D4628-7	LINER, LID
	2	D4628-9	COVER PLATE
	98	AN4-4A	BOLT
7		AN4-12A	BOLT
6		AN4-14A	SCREW
	196	AN970-4	WASHER
13	98	MS21042-4	NUT
26		NAS1149D0463J	WASHER (OR NAS1149D0432J)

#### 6.0 WEIGHT CHANGE:






This modification adds up to 35 lbs (20 lbs from DSI 9603-011 kit + 15 lbs from DSI 9603-013 kit) to the weight of the basket which reduces the cargo carrying capacity of the basket by up to 35 lbs depending on the amount of material removed from the D4624-1 Supporting Plate. See Figure 2 of sheet 4. It is the responsibility of the installer to ensure the limitations of FMS-D350-607 and FMS-D355-607 are not exceeded.

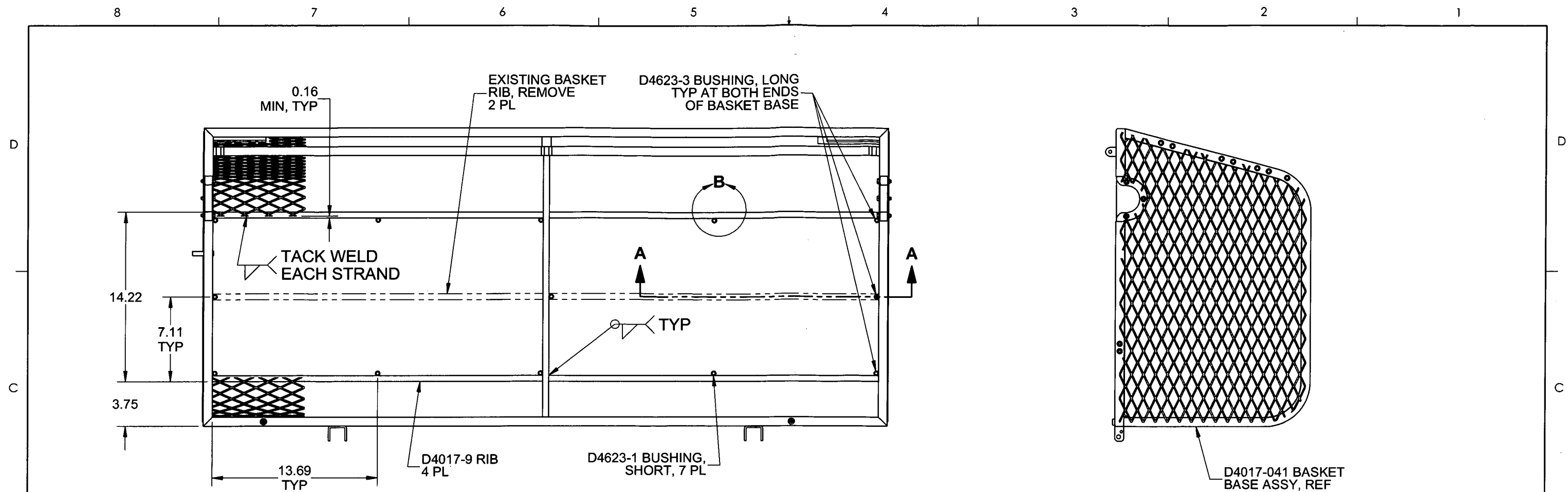
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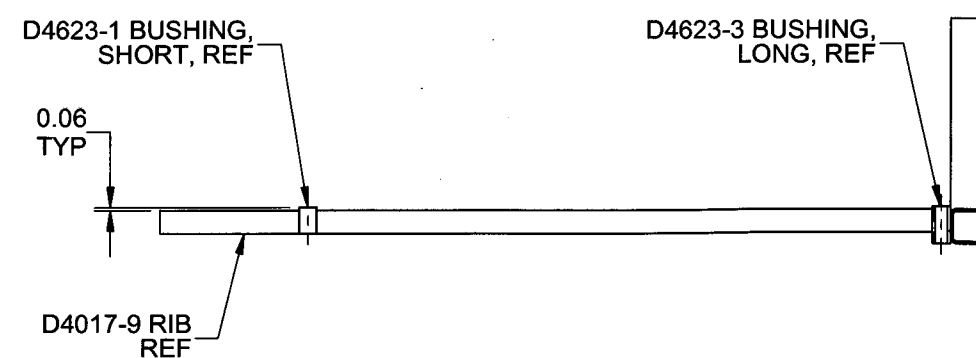
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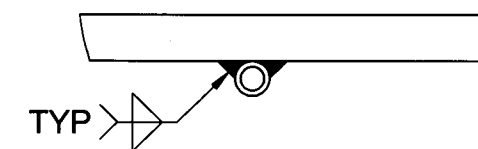
DESIGN		<b>DART AEROSPACE LTD</b>	
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CHECKED		DRAWING NO. <b>DSI 9603</b>	REV. B
MFG. APPR.	N/A	SHEET 2 OF 6	
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**FIGURE 1: MODIFYING THE D4017-041 BASKET BASE ASSY**  
(MESH SHOWN PARTIALLY FOR CLARITY)



**SECTION A-A: BUSHING DETAIL**  
SCALE 2X



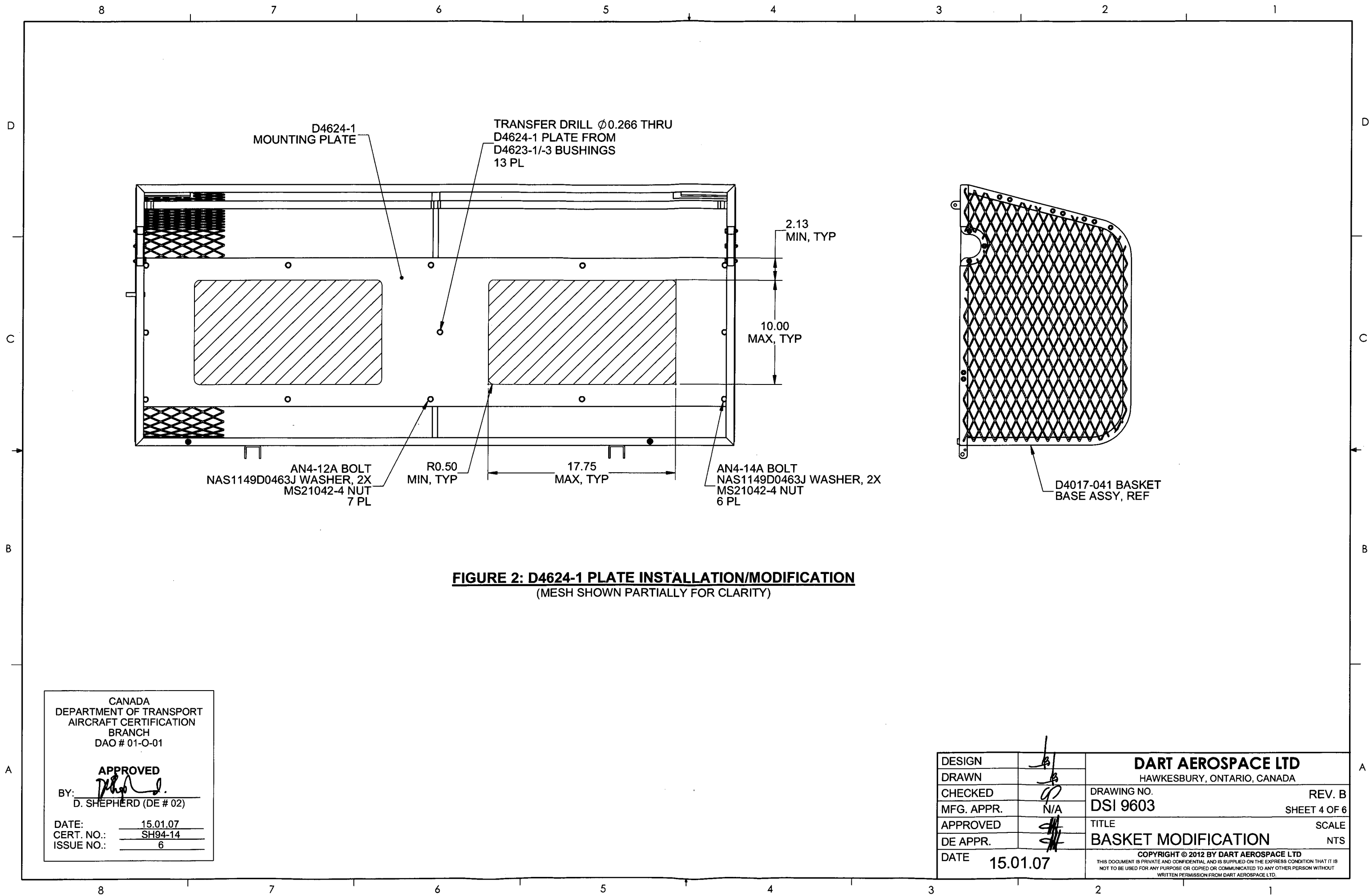
**DETAIL B: WELDING DETAIL**  
SCALE 4X

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**FIGURE 2: D4624-1 PLATE INSTALLATION/MODIFICATION**  
(MESH SHOWN PARTIALLY FOR CLARITY)

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